MONTHLY NOTICES

OF THE

ROYAL ASTRONOMICAL SOCIETY.

VOL. XXXVI. SUPPLEMENTARY NOTICE. No. 9.

Reference Catalogue of Astronomical Papers and Researches.

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A Catalogue of Scientific Papers, classified according to subjects, is a desideratum and a necessity to exhaustive scientific research, which I hope may be undertaken by our Public Library before many more years are allowed to pass.

I have made an attempt to supply this want, for a few branches of Stellar Astronomy, by a series of references to all books, papers, and notes relating to the following subjects:

1. Double Stars, including the Mathematical Investigation of the Orbits of Binary Systems.
2. Variable Stars.
3. Red Stars.
4. Nebulæ and Clusters.
5. Proper Motions of Stars.
6. Parallax and Distance of Stars.
7. Star Spectra.

It has been my endeavour to make the references exhaustive of astronomical literature; and though, where such an immense number of volumes have to be consulted, omissions are inevitable, I trust these will not be found very numerous.

They are derived mainly from a systematic examination of the libraries of the Royal Society and the Royal Astronomical Society, and as the first is peculiarly rich and complete in the Transactions of scientific Societies, I do not think many errors will be found in references to such works.* I have taken

* Exception, however, must be made to the large amount of scientific literature which is at present hidden in the Russian and Hungarian languages. It is a great misfortune that the titles of the majority of Memoirs and Papers printed in those languages should not be given also in *Latin*, which is a universal language for scientific men, and would be the means of bringing to their knowledge researches now entirely lost.

nothing from any index or catalogue of scientific papers, and every paper or book to which reference is made, with only one exception,* I have personally examined.

The abbreviated titles of Academies adopted are so well known as to make any explanation of them unnecessary. For simplicity I have thought it sufficient to indicate merely the number of the volume, without page, of the Memoirs of certain Societies where the papers are not numerous, or the volume is not paged throughout. On the subject of "Double Stars," every volume of the *Monthly Notices of the Royal Astronomical Society* contains one or more papers, and as the Indices to the volumes are very good, it seemed sufficient to give a general reference. But where, as on the subject of "Variable Stars," one or two volumes of the *Monthly Notices* furnished no information, then the page of every volume referred to is given.

In the *Astronomische Nachrichten* I have given simply the number without volume or page, which is the method commonly adopted in referring to this valuable publication. Should any difficulty be experienced in finding the column of the number referred to, the Indices to each volume will be found very carefully prepared and tolerably exhaustive of its contents.

All references to the *Connaissance des Temps* must be understood as applying to the "Additions."

Under the title of any particular Society will be found references to all Memoirs published by it bearing on the subject. Many of these Memoirs of a standard character are referred to again under the authors' names. In doing this I have laid myself open to the charge of invidious distinction, but as it was impossible to give all authors' names (which for recent papers are to be found in the Royal Society's Catalogue), and it was desirable to give some, I trust I may escape much censure for the selection I have made.

I have prepared this work, which has been no light task, in the hope that these references may be found useful to astronomers in guiding them to the particular literature giving information on the above-mentioned branches of Stellar Astronomy, and thereby reducing their labours in reading up the subject to a minimum.

* Double Stars. "Sidereal Messenger, The, Cincinnati, 1846–1848," inserted on the authority of *Silliman's Amer. Jour.*, 2nd Series, vol. 2, p. 442, as containing Mitchell's Observations of Double Stars. This work is not in the British Museum nor the libraries of the Royal Society and the Royal Astronomical Society.

London, 1876, *June*.

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On the Visibility of the Unilluminated Portion of the Disk of Venus.

By William Lassell, Esq., LL.D., F.R.S.

(*Extract from a Letter to E. Dunkin, F.R.S., Secretary.*)

The sky being clear on both the 12th and 13th of July, I observed *Venus* during a considerable part of the afternoons of both days, with the two-foot Equatoreal powers 155 and 219. To call the image a *crescent* is almost a misnomer; it might rather, especially on the 13th, be called a sharp, brilliant, semi-circular *hair*. The cusps appeared scarcely to reach the ends of a diameter—certainly not beyond in my estimation. As it has been said that under such circumstances the unilluminated part of the disk has been visible or traceable, I looked most carefully for such an appearance on both occasions, without being able to perceive any whatever. On the 13th I applied the micrometer, hiding all but the ends of the cusps behind one of the jaws, and endeavoured to divest myself of all prejudice which might arise from my belief that such could not be visible. The result, however, was entirely negative. I could not gain even an impression of any difference of brightness or colour of the sky included between or beyond the cusps, and that surrounding or adjacent. On the latter day I could not continue my observation so long, as the fierce sun shining down the inside of the tube soon occasioned a disturbance, which greatly impaired the precision of the image.

Ray Lodge, Maidenhead,
1876, 19 *July*.

Errata.

p. 350, line 7 from bottom, for *with* read *With*.
p. 351, line 4, for *make* read *made*.
p. 358, line 4 from bottom, for *developed* read *depended*.
p. 359, line 20, for $\Delta\delta l$ read Δl.
p. 359, line 32, read "const. of $k = k_0 = 0''{\cdot}10$."
p. 361, lines 17 and 18, *dele* the sign — before $1''{\cdot}50$.

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Instruments presented to the Society.

An Equatoreal Telescope, with Stand and Clock Movement, by Cooke.	Lady Lawrence.
A Transit Instrument.	———
A Seven-foot Transit Instrument, made by Troughton for Sir James South.	Lord Lindsay.
A Davis Quadrant or Back Staff.	R. J. Lecky, Esq.
A Nocturnal.	———